

REMARKS

Claims 1-21 were pending in the Application prior to the outstanding Office Action. No claims are amended. Reconsideration of the rejection is requested.

Rejection of Claims 1 and 3 under 35 U.S.C. §103(a)

The Examiner has rejected claims 1 and 3 under 35 U.S.C. §103(a) as being unpatentable over Brannon *et al.* (U.S. Patent No. 4,508,749) in view of Gawa *et al.* (U.S. Patent No. 6,090,330). The Examiner takes the position that the “baffle” limitation in independent claim 1 reads on the “iris diaphragm aperture” labeled “IRIS” in Figs. 1 and 2 of Brannon *et al.* Applicant respectfully requests reconsideration.

Claim 1 recites a baffle at the focal point of a relay telescope having an opening “large enough to easily pass the output beam and small enough to block off angle and out of focus back-reflections...” The aperture in Brannon *et al.* is not a baffle, rather it is an aperture used to induce diffraction. See, Brannon *et al.*, column 7, line 65 through column 8, line 13.

Furthermore, because the aperture is used to induce diffraction, it must block a substantial portion of the output beam. Therefore, the aperture in Brannon *et al.* does not “easily pass the output beam” as required by the claim. Brannon *et al.* are intentionally blocking portions of the laser beam to create either a “Fresnel-Like” diffraction or a “Fraunhofer-Like” diffraction. *Id.*

The present application requires an interpretation of the term “baffle” that distinguishes from an aperture used to induce diffraction or otherwise block significant portions of the output beam. In particular, if the baffle used in the system described herein induced diffraction, the beam would have a non-uniform intensity profile when it hit the target. The technology described in the present application, from the SBS phase conjugation, to the configuration of the amplifier and the use of a single frequency master oscillator, is all directed to formation of a uniform intensity profile in a wavefront corrected output beam, which is relayed onto the target. See, present application, page 10, line 25 to page 11, line 2; page 14, lines 10-18; page 26, lines 1-3. To interpret the term baffle as suggested by the Examiner to read on an aperture used to induce diffraction and therefore distort the output beam would be inconsistent with the usage of the term in the art, and inconsistent with the use of the term in the present application.

Diffraction means that the aperture in Brannon *et al.* is blocking significant portions of the main transmitted beam. Brannon *et al.* use a thus modified, that is diffracted, beam profile

in creating a set of circular patterns and one with either “Fresnel-Like” diffracted profile with high intensity ridges around the outside of the diffracted pattern or “Fraunhofer-Like” pattern with high intensity at the center and lower intensity around the outer edges. See, Brannon *et al.*, as cited above, column 7, line 65 through column 8, line 13.

Although Brannon *et al.* are imaging a mask pattern to the target, they are blocking significant portions of the beam and thus creating the diffraction pattern, resulting in projection of round spots with non-uniform intensity profile onto the target. Brannon *et al.* suggest that the diffraction patterns are fundamental to their goal of obtaining tapered vias when etching polyimide. *Id.*

A baffle, as recited in claim 1 of the present application, creates no noticeable diffraction and is sized depending on relative focal length and beam quality as well as spatial content of the imaged beam. As defined in the claim and at page 24, lines 10-12 of present application, a baffle is fundamentally different from an aperture used to induce diffraction. A baffle is described as having “a small hole just large enough to easily pass the focused light propagating to the target” but small enough to “block reflected light from propagating back to the laser.”

The Examiner further relies on Gawa *et al.* to teach “beam delivery optics” and combines Gawa *et al.* with Brannon *et al.* Gawa *et al.* does not describe a baffle between the laser and the beam delivery optics, and therefore does not provide a basis for suggesting the claimed baffle.

Therefore, given an interpretation of the term “baffle” that is consistent with the specification herein and with the normal usage of the term in the art, the reading of the claim on the aperture in Brannon *et al.* is an error, and the *prima facie* case of unpatentability of claim 1 is incomplete.

Claim 3 depends from claim 1 and is patentable for at least the same reasons.

Accordingly, reconsideration of the rejection of claims 1 and 3 is respectfully requested.

Claim 2 and 4-21 Allowed

The Examiner has allowed claims 2 and 4-21. Such claims are not amended.

CONCLUSION

It is respectfully submitted that this application is now in condition for allowance, and such action is requested. If the Examiner believes a telephone conference would aid the prosecution of this case in any way, please call the undersigned at (650) 712-0340.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (MICI 1003-2).

Respectfully submitted,

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